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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,394	04/12/2004	James D. Kelly	BP2387.5	2898
34399	7590	04/10/2006		
GARLICK HARRISON & MARKISON LLP P.O. BOX 160727 AUSTIN, TX 78716-0727			EXAMINER DILLER, JESSE DAVID	
			ART UNIT	PAPER NUMBER
			2187	
DATE MAILED: 04/10/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/822,394

Applicant(s)

KELLY, JAMES D.

Examiner

Jesse Diller

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-20 is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 6-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Examiner acknowledges receipt of the amendment in response to the office action dated 10/06/2005, which amendment was received 01/11/2006. At this point, claims 1, 9, 13, and 16 have been amended. Thus, claims 1-20 are still pending in the application.

Objections to the disclosure

2. In response to amendment, the objection to claim 16 is withdrawn.

Claim Rejections

3. In response to amendment, the rejection of claims 9-12, 16-17 by Nobunaga is withdrawn.

Priority

4. In response to Applicant's comments on priority, Applicants claim that Applicant's claim to priority is correct for the subject material found in both applications. However, please see 35 USC § 120, which states that for a priority claim to be valid, support under 35 USC § 112, 1st paragraph, for the subject matter of at least the independent claims must be found in the priority application. In this case, no independent claim in the instant application finds sufficient support under 112 1st in the subject matter of the priority application.

Response to Arguments

5. **Applicant's arguments filed with respect to the 35 USC § 102 rejections of claim 1 have been fully considered, but they are not persuasive.** Applicants contend that the limitations added by amendment are not taught by the reference. However, see the rejection which follows.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Nobunaga (U.S. Pub. No. 2005/0005183 A1).**

- **Referring to claim 1, Nobunaga discloses** an apparatus comprising: a storage device to receive incoming data from a data source as a first-in first-out (FIFO) and its control logic (see figure 1: combination of elements 107-109) to receive data from a memory bank (see figure 1: DR); and
- a select circuit as a clock multiplexer (see figure 1: element 105) to select between a first strobe to strobe in the incoming data at a first strobe rate to

transfer a first number of bits per strobe (see figure 1: element CLK STD and page 2: paragraphs [0029-0030]; also DQ, Fig. 6; one D0, D1, etc. per strobe) and a second strobe to strobe in the incoming data at a second strobe rate to transfer a second number of bits per strobe (see figure 1: element CLK FDA and page 2: paragraphs [0029-0030]; also Fig. 7; one D0, D1, etc. per strobe).

NOTE: the claim language does not require the numbers of bits per strobe to differ. See Par. 52, last 2 lines.

- **As to claim 2, Nobunaga further discloses** that the selected circuit is a multiplexer (see figure 1: element 105 and page 2: paragraph [0029]);
- **As to claim 3, Nobunaga further discloses** that the select circuit is to receive a select signal from a value stored in a register (see figure 1: element 101 and page 2: paragraphs [0024- 0025 and 0029]).
- **As to claim 4, Nobunaga further discloses** a register to store a programmable value used to select between the first and second strobes (see figure 1: element 101 and page 2: paragraphs [0024-0025 and 0029]).
- **As to claim 5, Nobunaga further discloses** that the storage device is a first-in, first-out (FIFO) buffer to receive incoming data to be buffered for transfer onto a data bus having different timing than the first or second strobe rate as a first-in first-out (FIFO) and its control logic (see figure 1: combination of elements 107-109) to receive data from a memory bank (see figure 1: DR) to processor (system) data bus (see figure 8: element 862).

7. **Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Aldereguia et al., US 5,522,064.**

- **Referring to claim 1, Aldereguia discloses** an apparatus comprising: a storage device to receive incoming data from a data source (buffers 34-35, Fig. 1) to receive data from a memory bank (see 16-1, Fig. 1); and
- a select circuit (controller 12, Fig. 1) to select between a first strobe to strobe in the incoming data at a first strobe rate to transfer a first number of bits per strobe and a second strobe to strobe in the incoming data at a second strobe rate to transfer a second number of bits per strobe (see Col. 8, lines 5-33; different RAS and CAS strobe rates are selected based on the data rates of the memory).
- *NOTE: the claim language does not require the numbers of bits per strobe to differ. See Par. 52, last 2 lines.*
- **As to claim 3, Aldereguia further discloses** that the select circuit is to receive a select signal from a value stored in a register (SDRs 40, Fig. 2).
- **As to claim 4, Aldereguia further discloses** a register to store a programmable value used to select between the first and second strobes (40, Fig. 2; Col. 8, lines 25-46; the SDRs determine which strobe timing is used).

Allowable Subject Matter

8. Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 9-20 are allowed.

10. If the applicant should choose to rewrite the independent claims to include the limitations recited in either one of claims 6-8, the applicant is encouraged to amend the title of the invention such that it is descriptive of the invention as claimed as required by sec. 606.01 of the MPEP. Furthermore, the Summary of the Invention and the Abstract should be amended to bring them into harmony with the allowed claims as required by paragraph 2 of sec. 1302.01 of the MPEP.

11. As allowable subject matter has been indicated, applicant's response must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 C.F.R. § 1.111(b) and § 707.07(a) of the M.P.E.P.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- **Chen, US 5,761,478**, discloses a system which allows reads and writes to memories of variable sizes and timings, and uses different strobes to activate the memories. Compare Figs. 8-18. However, Chen does not discuss a FIFO for buffering reads which uses the various strobes.
- **Lieberman, US 5,768,560**, also discloses a system for allowing various speeds and widths of memories to interface with a data bus. Lieberman uses FIFOs to buffer the data (Fig. 6; Col. 28), but makes no mention of strobes used to clock the data into the FIFO.

- **Lucas, US 6,085,285**, discloses a system and method of writing data from a FIFO into memories of variable speeds and widths, using different strobes to control the memories.
- **Condorelli, US 2003/0053367**, discloses a FIFO with variable read/write widths, but does not teach multiple strobes used to latch different width data.
- **Hopkins, US 5,761,464**, teaches a system for prefetching variable length data, which includes a 'standard FIFO', but does not teach using different strobes.

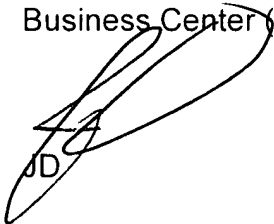
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

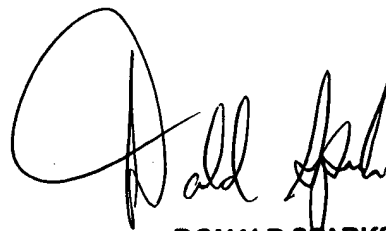
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jesse Diller whose telephone number is (571) 272-4173. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JD



DONALD SPARKS
SUPERVISORY PATENT EXAMINER